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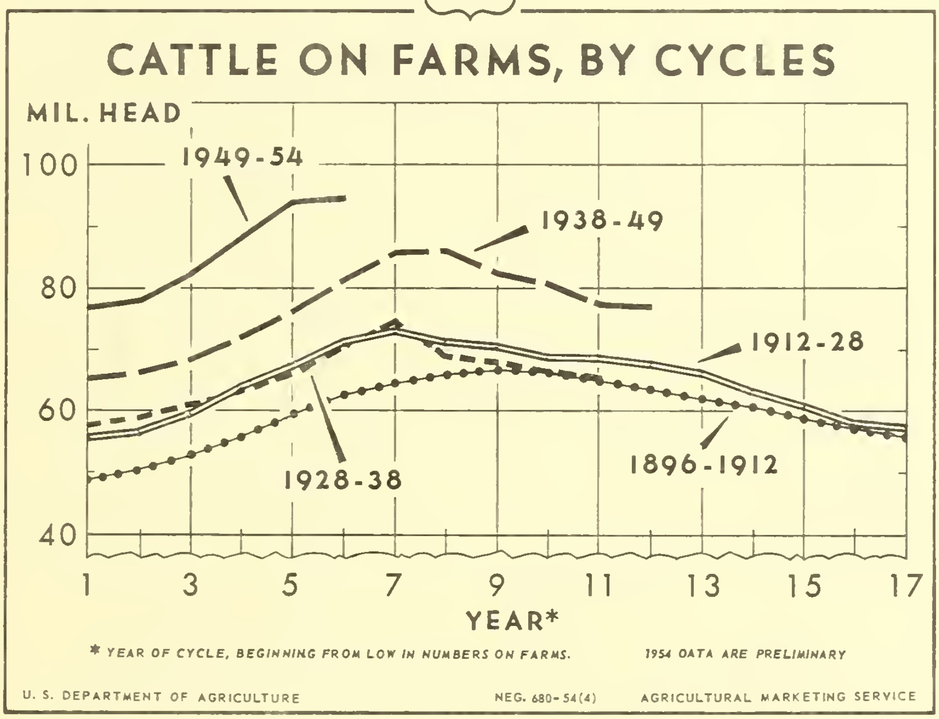
The LIVESTOCK and MEAT SITUATION

LMS-71

In this issue:
Projections of Cattle Numbers and Beef Supply
Rank of States in Livestock, 1954
Seasonality in Prices of Barrows and Gilts
Increase in Food Supply since 1910



This chart shows the pattern of 4 previous cycles in the number of cattle and calves on farms January 1, and the trend in the present cycle. The cyclical low point in numbers is plotted as the first year of each cycle.

The uptrend in numbers that began in 1949 is now leveling out. Assuming no severe drought, the high may come in 1955 or perhaps 1956, at around 95 or 96 million head.

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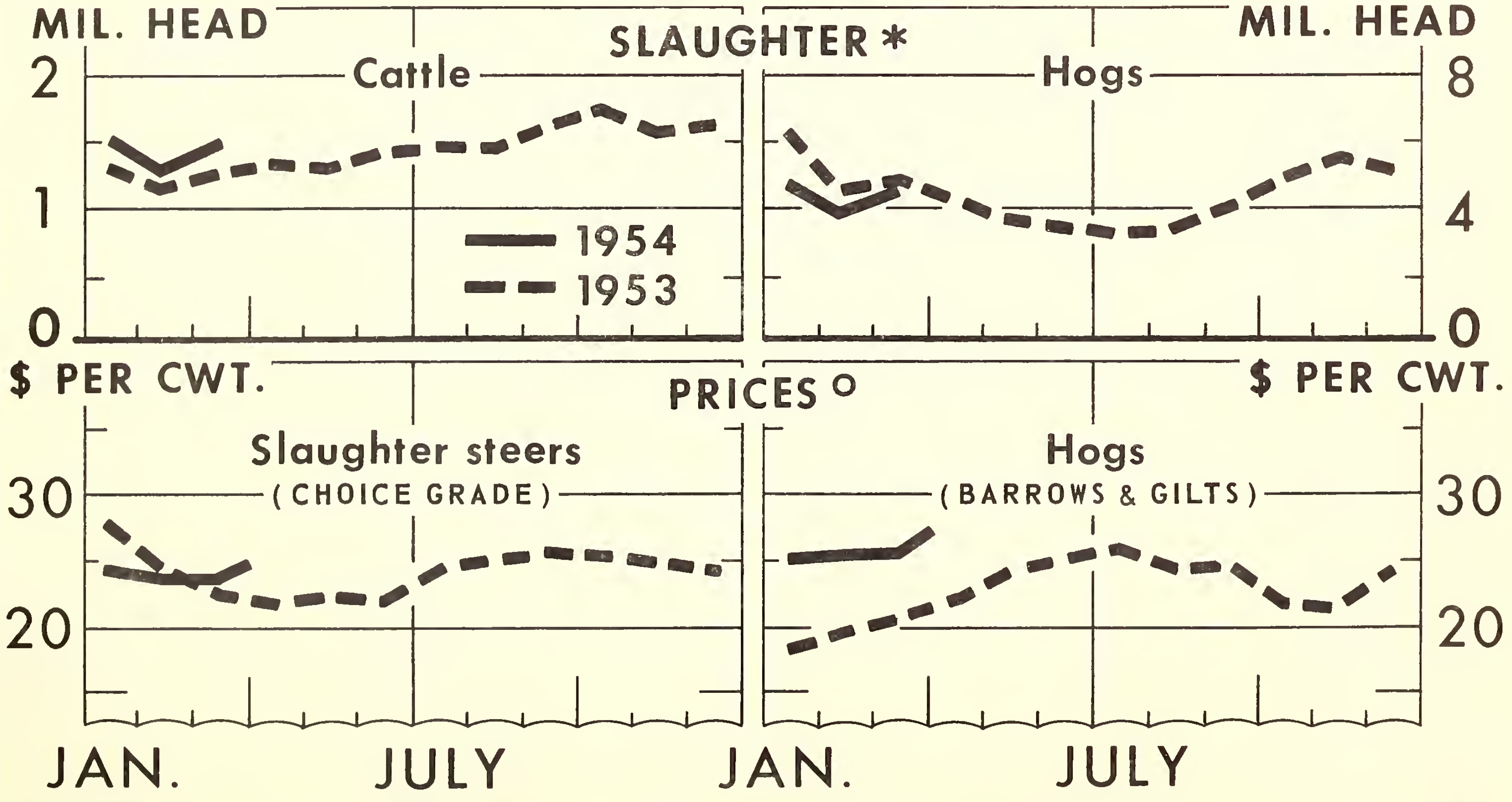
SLAUGHTER AND PRICES OF CATTLE AND HOGS



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THE LIVESTOCK AND MEAT SITUATION

Approved by the Outlook and Situation Board, April 30, 1954

SUMMARY

Hog production is turning upward. A March survey in 6 Corn Belt States showed a sizable expansion in winter-farrowed pigs and prospects for a greater increase in total spring farrowings than the 6 percent rise planned last fall. Hog slaughter in the second half of 1954 is expected to exceed that of the same time last year. Prices of hogs, which in April were a record for the month, will probably undergo more than the average or normal seasonal decline this fall as the early farrowed pigs start to market. Cattle slaughter, however, is expected to level out, unless drought becomes so severe as to increase marketings. Lamb slaughter will likely average a little less than last year. Commercial production of all meat the rest of this year is expected to be nearly as large as a year earlier. Production in the first quarter was about the same as in the same period of 1953. It included more beef, less pork, and about the same quantity of lamb as a year before.

The 1954 cattle slaughter will include more cows and fewer steers than last year. The slaughter supply of fed cattle will be nearly as large as in 1953. Although 9 percent fewer cattle were on feed January 1, since that date more cattle than a year ago have moved into feedlots and by April 1 the number on feed was only 2 to 3 percent less than last April.

The slaughter outlook indicates that prices of most classes of meat animals will undergo seasonal declines at various times later this year. The general average of prices is not likely to be much different from last year.

Prices of lambs and the better grades of cattle, as well as hogs, were higher in late April than in April 1953. Prices of lower grades of cattle were a little below April of last year. Top grade steers may average seasonally lower this spring. Reductions are expected to be small, and fed steer prices may prove fairly stable for the year as a whole. Prices for most other classes of meat animals will probably decline seasonally in the second half of the year. Cattle off range are expected to sell for roughly the same price as last summer and fall. Lamb prices, also dropping seasonally, will be affected by the abundant supply of beef. The prospective declines in prices of hogs are likely to begin earlier than usual. However, they start from an unusually high level and prices this fall will probably still be favorable to producers.

Hog production will likely continue upward. With the hog-corn price ratio above average the past year, the 1954 fall pig crop is expected to increase around 10 percent from last fall. A further increase next spring is probable. If these increases are moderate, the pork supply per person would be considerably below previous highs and prices for hogs next year, though substantially below this spring, would probably provide average returns to producers. A greatly expanded production would bring sharper declines.

How much hog production actually increases and prices decline may be governed in large part by the size of the 1954 corn crop and the percentage of corn producers eligible for loans. An average or smaller corn crop would tend to limit the increase in hog production. An above-average crop would probably be followed by a considerable expansion in hogs, as only a small part of all corn produced would be eligible for loan at the full rate of 90 percent of parity.

REVIEW AND OUTLOOK

Total Livestock Slaughter Volume About Equals 1953

Total livestock slaughter and meat production, which increased in 1953 to its largest volume for peacetime, is continuing at about the same volume in 1954. The 5,822 million pounds of meat produced in commercial plants in January-March was only 1 percent more than the 5,765 million pounds of the same period of 1953. (See table 1.) Total production the rest of the year probably will not differ a great deal from last year.

Beef has made up an unusually large part of all meat produced this year. Beef output in January-March was 13 percent above last year, while pork production was 14 percent below. The reduction in pork followed cutbacks in hog production the previous 2 years.

Veal output has made the greatest percentage gain--24 percent. Output of lamb in January-March showed little change, being down less than 1 percent from a year before.

Beef Production to Level Off, Pork to Rise

Production of beef, which has reached a far higher rate than ever before, is due to level off. Unless serious and widespread drought develops this summer, only moderately more cattle will be slaughtered this year than last. Most of the increase already has taken place. From now until the end of the year, cattle slaughter will sometimes exceed and sometimes fall below last year and will likely average about the same as a year earlier.

The quantity of beef produced from the larger 1954 slaughter may be up only a little, as average slaughter weights have been and will continue lighter.

Hog slaughter, on the other hand, may show less seasonal decline this summer than last and by mid-summer will probably begin to exceed last year. It will continue larger the rest of the year. Because of the reduction in the first half of 1954, however, total pork output for the year will probably fall short of 1953.

More Cows, Fewer Steers to be Slaughtered

Cattle slaughter is expected to level out because the expansion in numbers has slowed. Only 1 million more cattle were reported on farms this January than last and none of the increase was in slaughter cattle of near market weights. Although 3 percent more steers were slaughtered under Federal inspection in January-March than in the same months of 1953, the number slaughtered in months ahead will not likely equal the high number slaughtered last year.

Table 1.- Commercial meat production, United States, by quarter-year
1951 to first quarter 1954.

Year	January-March	April-June	July-September	October-December	Year
			All meats		
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
1951	5,181	4,699	4.692	5,647	20,219
1952	5,583	4,821	4,886	6,083	21,373
1953	5,765	5,433	5,583	6,451	23,232
1954	5,822				
			Beef		
1951	2,188	1,965	2,140	2,256	8,549
1952	2,216	2,143	2,420	4,558	9,337
1953	2,711	2,955	3,131	3,276	12,073
1954	3,069				
			Veal		
1951	220	216	271	265	972
1952	211	231	305	333	1,080
1953	268	338	434	421	1,461
1954	332				
			Lamb and Mutton		
1951	131	109	127	141	508
1952	157	145	151	182	635
1953	187	161	175	195	718
1954	186				
			Pork excluding lard		
1951	2,642	2,409	2,154	2,985	10,190
1952	2,999	2,302	2,010	3,010	10,321
1953	2,599	1,979	1,843	2,559	8,980
1954	2,235				

January-March slaughter of heifers was up 33 percent and some increase is likely for 1954 as a whole.

Cow slaughter was 35 percent higher in January-March this year than last and will continue above 1953, except possibly at the peak slaughter season. However, the percentage increase will not be as large for the year as a whole as it has been to date.

Calf Slaughter to be High

Although cattle slaughter is expected to be only moderately above last year, calf slaughter will probably be considerably larger.

When cattle numbers are increasing rapidly as they did from 1949 through 1952, few calves are slaughtered. When expansion slows, calf slaughter rises a great deal. This stage of the cattle cycle began in 1953 and will extend into 1954 and perhaps longer. Calf slaughter this year is expected to be at least 1 million head or 8 percent greater than last year, and it could be up more than this.

Nearly as Many Fed Cattle as Last Year

Nearly as many ~~fed~~ cattle will be slaughtered as last year. The number on feed in January was 9 percent below the previous January. But a wide feeding margin restored confidence and feeders put many more cattle on feed this winter than last. On April 1, the number on feed was only 2 to 3 percent less than a year earlier.

Cattle on feed this April weighed less than last year. Since producers indicated their intentions to market almost as rapidly as last year, cattle probably will be sold at lighter weights than a year ago. Fed cattle marketings in June are not expected to reach the very high rate of last June but in other months may be roughly similar to last year.

In all the above appraisals of prospective cattle marketings it is assumed that the drought will not be so severe as to result in a great expansion of marketings. Current information on the drought is given later in this report.

Hog Slaughter in Second Half to Exceed Last Year

After 2 years of downtrend hog production is now increasing. Last December hog producers planned to increase spring farrowings 6 percent. Now it looks as though they are exceeding their earlier intentions. A March survey in 6 Corn Belt States revealed that winter farrowings there were up 39 percent and that the total spring crop (December through May) would be 9 percent larger in that area.

Hog slaughter is expected to decrease less than usual this spring. By mid-summer it will probably be as large as a year before and thereafter will exceed last year. Summer slaughter will likely include more barrows and gilts saved from the larger number of winter-farrowed pigs, and of more sows slaughtered after farrowing.

Seasonal Declines in Cattle Prices Likely

In late April, prices of hogs, lambs and the better grades of cattle were above April 1953 while cattle of lower grades were moderately below. Hogs were higher than in any previous April. Prices of most classes of meat animals will decline seasonally later this year--though not all at the same time--and in general may average about the same as last year.

Prices of fed cattle of top grades recovered in April their decline of $1.00 or more per 100 pounds in March. Since slaughter of these cattle will be at a higher level as a result of the increased number placed on feed this winter, prices may average seasonally lower in late spring and early summer. However, reductions are likely to be comparatively small. Prices of these grades of cattle are not expected to drop to the lowest points of 1953 and may prove generally relatively stable in 1954.

A larger seasonal price decline is likely for cattle of the lower grades, including cows and stocker and feeder cattle. Prices of these classes usually are highest at the beginning of the grazing season, then decline to their low in the fall. If there is no extremely severe drought, the supply of yearling steers and heifers off grass will not change much from last year and the supply of beef calves will be only a little greater. Prices of cattle off grass may average not much different from last year's reduced prices.

Hog Prices to Decline More than Usual

In a typical or average year, prices of slaughter barrows and gilts are highest in July and August, recede in September and then decline faster in October and November. This year, the peak and subsequent decline may be earlier and the total decline may be somewhat greater than average because of the larger pork supply expected when hogs from the spring pig crop are marketed.

Price declines will begin from a high level. However, supplies of pork are small and after their increase this fall will not be unusually large. The supply of lard also is not great, and demand for the smaller supply has been fairly strong. Reductions in hog prices are not expected to be extremely great and the hog-corn price ratio this fall will probably remain above average.

Profits in Cattle and Lamb Feeding

Last fall, both cattle and lamb feeders were hesitant to buy feeder stock for the new season. Both had failed to make much profit the year before. They bought fewer feeder cattle and lambs than the previous fall even though prices were $5.00 to $8.00 per 100 pounds lower. Beginning in early winter buying interest revived and greater numbers of both cattle and lambs were placed on feed this winter than last. Prices of feeder steers rose $4.00 from their fall low, and prices of feeder lambs advanced more than $6.00--from about $15.50 per 100 pounds at Omaha to over $22.00.

Table 2.-Average prices and values of important items affecting returns from lamb feeding, 1948-49 to 1953-54

Item	1948-1949	1949-1950	1950-1951	1951-1952	1952-1953	1953-1954
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Price per 100 pounds of Choice and Prime slaughter lambs, Chicago, December-March	25.72	24.33	36.35	28.82	22.49	22.10
Price per 100 pounds of Good and Choice feeder lambs, Omaha, September-December	22.90	23.16	29.35	31.61	21.01	17.05
Price per bushel received by farmers for corn, North Central States, October-March	1.190	1.093	1.473	1.620	1.417	1.363
Price per ton received by farmers for alfalfa hay, per bale, North Central States, October-March	25.25	21.68	21.98	21.48	24.58	22.83
	Total value					
Market value at Chicago of Choice and Prime 85 pound slaughter lambs	21.86	20.68	30.90	24.50	19.12	18.78
Market cost at Omaha of 60 pound feeder lambs	13.74	13.90	17.61	18.97	12.61	10.23
Cost of 2½ bushels of corn .	2.98	2.73	3.68	4.05	3.54	3.41
Cost of 150 pounds of alfalfa hay	1.89	1.63	1.65	1.61	1.84	1.71
Total of cost items shown 1/.	18.61	18.26	22.94	24.63	17.99	15.35
Margin of market value per lamb over total of cost items shown 1/	3.25	2.42	7.96	- .13	1.13	3.43

1/ Does not include purchasing or marketing expenses, labor cost, death losses, overhead costs or costs of other feed ingredients, or credits for manure. The prices shown are averages for the lamb feeding season for the North Central region, and do not necessarily coincide with the experience of individual feeders.

Cattle bought last fall are generally returning average profits or better. Lambs put on feed at that time also proved fairly profitable. Comparisons of average prices and values in lamb feeding show a profit per head greater than in any of the last 6 years except 1950-51. (See table 2.)

Profits were greater this year than last because both feed and feeder lambs cost less while prices received for fed lambs averaged only slightly lower than last winter. Slaughter lamb prices advanced during the feeding and marketing season, assuring a wide price margin in feeding.

The data in table 2 apply to a representative winter feeding program. Only the principal cost and receipt items are shown. Returns to individual feeders, of course, varied from the averages shown.

Lamb feeders who bought lambs late in the season probably made lower returns than the figure shown in table 2. Similarly, cattle feeders who waited until winter to purchase their cattle will probably make a lower return than those who purchased in the fall.

More Fall Pigs this Year

Farmers in 6 Corn Belt States reported in March that they intended to have 5 percent more sows farrow this summer than last. The increase in the total fall crop (June to December) will probably be at least this large. Thus the uptrend in hog production that began this spring will continue this fall. It probably will be extended in 1955.

These increases were stimulated by high prices for hogs relative to the price of corn. Continuously since February 1953 the hog-corn price ratio has exceeded its longtime average of about 12. In every month of 1954 to date the ratio has been above 17. A ratio this high has ordinarily been followed by a very substantial increase in farrowings. (See table 3.) However, in the past two years hog producers have not raised as many hogs as would be expected from the hog-corn price relationships. It is possible that they will again fail to do so this fall. A fairly substantial increase, possibly around 10 percent, in the fall pig crop is believed likely.

An increase of this size would probably not reduce prices of hogs to unprofitable levels. The increase would start from the low numbers of hogs being raised this year and the pork supply next winter would be considerably larger than this winter but not exceptionally large. Prices would therefore be reduced a great deal from the high prices of this winter but would be fairly favorable.

Size of Corn Crop May Influence Hog Production in Late 1954 and 1955

The size of the corn crop may have much to do with the actual increase in number of fall pigs, and even more with the number produced in the spring of 1955.

Table 3.- Array of hog-corn price ratios during March-July, and corresponding changes in number of sows farrowing fall pigs, 1924-54

Year	Hog-corn ratio, March-July 1/		Number of sows farrowing in the fall	Increase or decrease from previous year in sows farrowing	
	United States	North Central States		Number	Percentage
			1,000 head	1,000 head	Percent
1926	18.0	20.3	4,330	391	9.9
1954	2/17.5-18.0	---	---	---	---
1942	16.4	17.6	6,840	1,305	23.6
1938	15.5	17.3	4,517	672	17.5
1949	15.4	15.9	5,568	498	9.8
1953 3/	15.1	15.7	4,762	495	9.4
1936	14.9	16.5	3,957	100	2.6
1947	13.8	14.2	4,866	162	3.4
1939	13.6	15.5	5,252	835	18.5
1943	13.6	14.6	7,565	725	10.6
1950	13.5	13.9	5,923	355	6.4
1941	13.3	14.1	5,535	772	16.2
1945	12.9	14.0	5,429	547	11.2
1951	12.8	13.0	6,032	109	1.8
1927	12.8	13.5	4,609	279	6.4
1930	11.8	13.2	4,073	- 191	- 4.5
1929	11.6	12.7	4,264	- 165	- 3.7
1931	11.4	13.0	4,797	724	17.8
1932	11.2	12.6	5,179	382	8.0
1944	11.1	12.3	4,882	- 2,683	- 35.5
1952	10.8	11.1	5,257	- 775	- 12.8
1933	10.8	12.9	5,207	28	.5
1925	10.8	11.8	3,939	- 405	- 9.3
1946	10.8	11.4	4,704	- 725	- 13.4
1948	10.4	10.4	5,070	204	4.2
1935	10.1	10.8	3,857	921	31.4
1928	8.8	9.4	4,429	- 180	- 3.9
1940	8.5	9.2	4,763	- 589	- 11.0
1937	8.5	8.6	3,845	- 112	- 2.8
1924	8.0	8.9	4,344	- 1,448	- 25.0
1934	6.9	8.0	2,936	- 2,271	- 43.6

1/ March-July is regarded as the breeding season for the fall pig crop.
2/ Estimated. April 1954 was 18.3 for the United States.
3/ Preliminary data.

The size of the corn crop did not have much effect on the number of hogs raised the last few years. All corn producers who had acceptable storage space were eligible to put as much of their corn as they wished under loan. But this year a farmer in the commercial corn area can qualify for a 90 percent-of-parity loan on corn only if he has complied with acreage allotments. A farmer outside the commercial area is not required to comply with allotments but his loan is lower, being based on 67.5 percent of parity. Indications in March were that a majority of corn producers did not intend to hold plantings down to their allotted acres. If they follow these intentions, only a small part of the total corn crop will be placed under loan.

If the corn crop should be average or smaller, due either to greater compliance than intended earlier or to unfavorable weather, no big increase in hog production would occur. A very large crop, most of it "free" corn not under loan, would spur a sizable increase in farrowings late this year and in 1955.

Overexpansion Possible in 1955

Any expansion created by rising prices carries the danger of going too far. This is a possibility in the next year or two. It is not a certainty. Moderate increases would not constitute over-expansion, but larger increases would.

The pig crop of 1953 was 82 million. This was a reduction from 102 million in 1951. Pork consumption per person in 1953 was 63 pounds, a decrease from 71 pounds in 1951 and 72 pounds in 1952. This year consumption will be around 59 pounds, the lowest since 1938. If the 1954 pig crops were to increase 7 percent, and the 1955 spring crop another 7 percent, pork consumption in 1955 would be 61 to 63 pounds. As another illustration, if the increases were 10 percent, consumption would be 63 to 65 pounds. Increases of 12 percent would provide 65 to 66 pounds. Such increases might be regarded as moderate.

If the increases should be much more that 12 percent, the pork supply for consumption would approach the 1951-52 rates of 71-72 pounds. Sharply lower prices for hogs, with a hog-corn price ratio below average and possibly depressed prices for both hogs and corn, would probably result from a pork supply of this size. When pork consumption was high in 1951-52, beef consumption was low (55 to 62 pounds) and total red meat consumption was around 140 pounds. Beef consumption for the near future is expected to be around 75-76 pounds. If pork consumption were to be near or above 70 pounds, consumption of all meat would be more than 155 pounds, a new high for recent years.

To summarize, the increases in pig crops likely in 1954 are not expected to depress hog prices to an unfavorable level. Overexpansion and greatly depressed prices could come later in 1955. But this possibility may depend to considerable extent on the size of the corn crop this fall.

Seasonality in Farrowings Smoother Now

If many more pigs were farrowed in December-February but only a few more in March-May, as was indicated by the 6-State pig crop report, the trend toward more winter farrowings will have been given a big boost this year.

For several years hog producers have shifted more and more of their farrowings into the off seasons, winter and summer. In 1946-49 only about 11 percent of each year's total farrowings came during December, January and February. In 1953, over 14 percent were in those months. (See table 4.) A few years ago, farrowings in March-May made up more than half of the year's total. Last year they were down to about 47 percent.

Similarly, farrowings have been shifted from the fall toward the summer. Those in June-August have risen from 16 to almost 21 percent of the annual total with a particularly large increase in the proportion falling in August. The percentage for September-November has decreased.

Not only have farrowings shifted within each season, but the fall as a whole has continued to expand relative to the spring, as may be seen from table 4.

Spring farrowings (December through May) were 63.2 percent of the annual total in 1946, but 60.7 percent in 1953. This decrease in the proportion of farrowings in the spring and relative increase in fall farrowings continues a trend of many years. In the mid-1920's, more than two-thirds of the annual pig crop was born in the spring. 1/

Table 4.- Number of sows farrowing by quarters, 1946-53

Year	Dec.-Feb.	Mar.-May	June-Aug.	Sept.-Nov.	Year	Percentage of annual total: Dec.-Feb.	Mar.-May	June-Aug.	Sept.-Nov.
	Thous.	Thous.	Thous.	Thous.	Thous.	Pct.	Pct.	Pct.	Pct.
1946	1,348	6,729	2,060	2,644	12,781	10.5	52.7	16.1	20.7
1947	1,574	6,974	2,192	2,674	13,414	11.7	52.0	16.3	20.0
1948	1,350	6,483	2,282	2,788	12,903	10.5	50.2	17.7	21.6
1949	1,682	7,138	2,521	3,047	14,383	11.7	49.6	17.5	21.2
1950	1,754	7,420	2,605	3,318	15,097	11.6	49.1	17.3	22.0
1951	2,016	7,575	2,842	3,190	15,623	12.9	48.5	18.2	20.4
1952	1,945	6,535	2,676	2,581	13,737	14.1	47.6	19.5	18.8
1953 1/	1,724	5,653	2,510	2,252	12,139	14.2	46.5	20.7	18.6

1/ Preliminary.

1/ These trends were reported in this Situation for December 1950.

The changes in farrowing dates reflect the efforts of hog producers to market more of their hogs in months when prices of hogs are normally high. As the chart on page 26 shows, prices are at peaks in mid-summer and mid-winter. The increase in winter farrowings is an attempt to sell more hogs in July-September; the increase in summer farrowings is to take advantage of the moderate increase in prices at mid-winter.

Another factor leading to more evenly distributed farrowings is the improved equipment and facilities now in use. They have been especially effective in making possible the increase in winter farrowings.

The rise in production of fall pigs is accounted for by two other factors: (1) The desire of producers to get a larger return from their investment by raising two pig crops a year instead of one; and (2) a regional shift from 1-pig-crop regions to the central corn belt, where 2 crops are traditional.

Hog producers, by shifting farrowing to take advantage of seasonal changes in prices, are smoothing the supply of pork during the year. Some smoothing of season price swings themselves may therefore be expected.

A preliminary study shows that the pattern of seasonal price fluctuation has been modified. However, the extent of fluctuation has not been reduced much. Prices in December and January are not so low as formerly. But offsetting this, prices in June and July and possibly August tend to be higher than before. The higher summer prices, despite the increase in marketings, are probably due to a stronger consumer demand for pork during the summer, made possible by refrigeration. Consumers can keep fresh meats in hot summer weather much better now than before cold storage lockers and household electric refrigerators and freezers were common, and they have probably increased their summer demand for meat.

Prices of hogs in March and April in recent years have been lower relative to other months than they were 20 years ago. This change is due to the increased number of hogs in the spring market resulting from the greater number of fall pigs. Prices in September also have been reduced relative to other months. This change too is traced to the altered pattern of marketings. More pigs have been born in early months and they have been readied for market faster, thus increasing materially the supply of hogs for September slaughter.

A special article on seasonality of barrow and gilt prices as it affects the timing of marketings follows on page 17.

Drought in West

Dry weather continues to threaten much of the Southwest although April rains over much of the Southern Plains have partly relieved the serious moisture deficiency there. However at the end of April serious dryness still existed over the western parts of Kansas and Nebraska and much of Colorado and New Mexico. More moisture is still needed over practically the entire drought area and in much of the central section of the nation where soil moisture is below normal.

Precipitation this winter was much less than normal in an area extending southward from southern Nebraska through Kansas, Oklahoma and Texas, and westward to eastern Colorado and all of New Mexico. Local areas such as southern Illinois and eastern Missouri also had a marked deficiency, while much of the West and of the East also had less than normal rain and snowfall.

In late April, 210 counties were receiving corn and wheat at reduced prices as emergency drought feed.

Although much of the dry country received rains in April, it is too early to know how serious drought will be. The prolonged dryness has depleted reserves of moisture in the soil and until this is replenished the threat of drought is very real. If drought should be widespread and severe, it would have pronounced effects on livestock marketings and prices. Marketings of cattle and calves would be greater than now expected, and prices would be lower.

Mexico to be Declared Free of Foot-and-Mouth Disease If No New Outbreak

The Secretary of Agriculture has announced that if no new outbreaks occur, Mexico will be declared free of foot-and-mouth disease as of December 31, 1954. The border would then be open for imports of livestock and livestock products.

After having been open for 8 1/2 months, the Mexican border was closed in May 1953 when a new infection of foot-and-mouth disease was reported. The outbreak was confined to a local area and no new case has been reported since last December.

NEW OR REVISED SERIES

Table 5 adds 1953 data to a table on production and distribution of canned meat regularly carried in this Situation.

Total output of canned meat under Federal inspection increased in 1953, and apparent consumption per person also was higher. However, these figures include beef canned for Department of Agriculture contract, which was delivered to School Lunches and other eligible institutions under a Section 32 program or was exported under financing by the Foreign Operations Administration. FOA canned beef exported before December 31 shows up in the export data of the table. All other beef canned for government purchase, except that in year-end refrigerated stocks, is included in civilian distribution.

Thus, the output of canned meat other than for government order was a little smaller in 1953 than in 1952. Consumption per person exclusive of that distributed through school lunches and institutions also was a little less.

The data of table 5 include imports of canned pork. These amounted to about two-thirds of a pound per person in 1953. As the Census Bureau did not begin reporting canned pork imports until 1954, the figures in the table are quantities inspected for entry as reported by the Meat Inspection Branch.

Wool, Mohair Receipts

In tables 6 and 7 data are presented on production, prices, and cash receipts from wool and mohair. Producers' receipts from wool last year were almost the same as in 1952 while the value of mohair produced was down 4 percent.

Table 5 .- Canned meat: Supply and distribution, 1937-53

Year	Federally inspected production 1/	Imports: Canned beef 2/	Imports: Canned pork 3/	Beginning stocks 4/	Commercial exports and shipments 5/	Ending stocks 4/	USDA purchases 6/	Military purchases 7/	Apparent civilian distribution 8: Total	Apparent civilian distribution 8: Per Capita
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Pounds
1937	308.1	38.1	43.1	---	21.9	---	---	---	417.4	3.2
1938	303.5	78.6	40.6	---	22.8	---	---	---	399.9	3.0
1939	406.8	85.9	36.6	---	23.9	---	---	---	505.4	3.8
1940	530.2	61.3	1.2	---	20.2	---	---	---	572.5	4.3
1941	883.9	104.3	.7	---	26.7	---	188.4	75.5	698.3	5.2
1942	1,926.6	91.6	.5	---	19.8	---	875.6	920.5	202.8	1.5
1943	2,051.2	105.5	2.3	---	9.9	---	1,024.8	680.5	443.8	3.4
1944	1,930.7	87.7	.2	---	13.2	---	448.6	1,121.0	435.8	3.3
1945	1,926.1	54.8	9/	17.7	13.5	18.1	359.6	970.9	636.5	4.9
1946	1,342.8	3.3	.2	18.1	55.3	22.6	157.1	19.2	1,110.2	7.9
1947	1,099.4	28.7	9/	22.6	64.3	27.3	---	31.1	1,028.0	7.1
1948	1,096.0	129.1	.2	27.3	35.4	28.0	---	52.8	1,136.4	7.7
1949	1,039.7	72.3	1.6	28.0	25.7	27.2	---	23.0	1,065.7	7.1
1950	1,231.3	124.6	18.6	27.2	20.0	27.3	---	50.3	1,304.1	8.6
1951	1,441.2	153.9	30.8	27.3	20.6	34.6	---	246.2	1,351.8	8.8
1952	1,351.2	120.0	53.6	34.6	18.7	37.1	---	57.8	1,446.0	9.3
1953	1,437.4	100.1	97.4	37.1	28.0	34.0	---	50.5	10/1,559.5	10/9.9

1/ Beef, pork, sausage, all other, excluding soup. Data from Meat Inspection Branch, ARS. 2/ Data from Department of Commerce. 3/ Federally inspected for entry. Data from Meat Inspection Branch, ARS. 4/ Refrigerated stocks only. 5/ Includes shipments to Territories. Excludes shipments under lend-lease and UNRRA (1941-46) and the Civilian Supply Programs of the U. S. Department of the Army in foreign countries (1948-51). Data from Department of Commerce. 6/ Canned meats and meat food products officially graded for CCC. Does not include transfers of meat from the military to CCC or small quantities turned back to civilians or transferred to the military. Purchases from U. S. supplies or from imports. Does not include USDA purchases in 1953, which were for commercial export or domestic consumption. 7/ From Statistical Yearbook of the Quartermaster Corps and other military records. Not a complete listing of all canned meats purchased during the war years, but cover practically all of the canned meats purchased during the war for mass troop feeding. Includes imported canned meat and army rations and some meat and rations later transferred to CCC and UNRRA. 8/ Calculated from Federally inspected supplies and distribution as shown. Federally inspected production is the largest part of total U. S. production of canned meats. 9/ Less than 50,000 pounds. 10/ Includes canned beef bought by the Department of Agriculture for school lunches and eligible institutions.

Table 6.- Production, prices and income from wool, United States, 1946-53

Year	Number sheep shorn 1/	Weight per fleece	Production of shorn wool	Price per pound 2/	Cash receipts	Production of pulled wool
	Thousands	Pounds	1,000 lb.	Cents	1,000 dol.	1,000 lb.
1946	34,647	8.11	280,908	42.3	118,805	61,300
1947	30,953	8.12	251,425	42.0	105,654	56,600
1948	28,649	8.09	231,770	49.2	114,055	46,600
1949	26,382	8.07	212,899	49.4	105,223	35,600
1950	26,387	8.16	215,422	62.1	133,729	32,400
1951	27,357	8.24	225,545	97.0	218,832	25,900
1952	28,172	8.25	232,373	54.2	125,889	33,600
1953 3/	27,156	8.30	230,343	4/54.7	126,109	41,000

1/ Includes sheep shorn at commercial feeding yards.
2/ Average price for the marketing season April through March received by farmers.
3/ Preliminary.
4/ Includes an allowance for wool under loan.

Table 7.- Mohair: Production and value for 7 leading States, 1946-53 1/

Year	Number goats clipped 2/	Average clip per goat	Production of mohair	Price per pound	Value
	Thousands	Pounds	1,000 lb.	Cents	1,000 dol.
1946	3,939	4.9	19,282	61.1	11,783
1947	3,672	5.0	18,225	53.6	9,772
1948	3,164	5.1	15,972	45.4	7,251
1949	2,558	5.1	12,959	46.3	6,001
1950	2,530	5.2	13,245	76.0	10,062
1951	2,475	5.2	12,888	118.0	15,183
1952	2,268	5.3	12,116	96.2	11,660
1953 3/	2,307	5.4	12,572	88.6	11,138

1/ Seven leading States are Missouri, Texas, New Mexico, Arizona, Utah, Oregon and California.

2/ In States where goats are clipped twice a year the number clipped is the sum of goats and kids clipped in the spring and kids clipped in the fall.

3/ Preliminary.

Beef Imports Down, Pork Up in 1953

Tables 8 and 9 summarize data on foreign trade in cattle and meat for recent years.

Total meat imports were reduced about 10 percent in 1953 while exports increased slightly. Imports of beef were considerably smaller but those of pork were higher. These changes reflect the lower price for beef and higher price for pork in the United States last year. The sizable increase in receipts from Canada and decrease in those from Mexico largely resulted from the fact that the Canadian border was reopened during the year but the Mexican border was closed to imports of cattle, hogs and fresh meat after May 23...

The increase in exports of beef consisted largely of exports financed by the Foreign Operations Administration.

RANK OF STATES IN LIVESTOCK NUMBERS AND PRODUCTION

In tables 10, 11, and 12, the 48 States are ranked according to the number of each of 5 categories of livestock on farms and as to pig crops and the liveweight of production on farms. Similar tables were presented in previous years. A more complete explanation is provided in the March-April 1952 issue of this Situation.

The rankings of States with respect to livestock numbers and production do not change rapidly. Over several years, however, hog production has tended toward greater concentration in the Corn Belt while Eastern States have moved up relative to the West in beef cattle numbers.

Among top States in the number of all cattle on farms the dairy States have fallen back relative to beef States but otherwise the ranking has not changed much. Wisconsin dropped from 4th in 1949 to 5th this year and Minnesota from 6th to 8th. The top 3 States in beef cows are the same as 5 years ago. Montana has been reduced from 4th to 6th. Missouri, top among Eastern States, has advanced from 11th to 7th in beef cow numbers. Iowa is up from 10th to 8th. Florida, the first-ranking of Southern States, rose from 12th in 1949 to 9th in 1954. Colorado dropped from 8th to 10th and California from 9th to 11th.

In sheep and lambs on farms California has moved ahead of Montana. Iowa has risen from 11th in 1949 to 7th this year. Notable changes in the rank of States in pig crops from 1948 to 1953: Georgia rose from 12th to 9th, North Carolina from 15th to 11th, and Alabama from 16th to 12th. Kentucky fell from 11th to 13th, Kansas from 13th to 16th, and Texas from 9th to 17th.

SEASONAL VARIATION IN PRICES OF BARROWS AND GILTS 2/

No class of meat animals has as marked seasonal variations in prices as hogs. Prices of slaughter barrows and gilts at Chicago are normally 25 percent

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2/ Reported by Harold F. Breimyer from work carried on in connection with a research study on meat animals conducted under the Research and Marketing Act. Newly calculated indexes of seasonal variation in prices are applied to basic analyses presented in "Feed Consumption and Marketing Weight of Hogs" by Atkinson and Klein. USDA Tech. Bul. 894, 1945.

Table 8.- Imports of cattle from Canada and Mexico, 1940 to date

Year	Dutiable Cattle							Breeding cattle (free)	Total cattle
	700 pounds and over			Under 700 pounds			Total dutiable cattle		
	Cows for dairy purposes	Other	Total	Under 200 pounds	200 to 699 pounds	Total			
	Head	Head	Head	Head	Head	Head	Head	Head	Head
	From Canada								
1940	9,595	125,004	134,599	74,681	10,076	84,757	219,356	12,904	232,260
1941	13,387	150,216	163,603	62,419	10,192	72,611	236,214	16,139	252,353
1942 1/	19,509	115,475	134,984	53,015	9,003	62,048	197,032	16,107	213,139
1943	34,764	211	34,975	5,986	1,317	7,303	42,278	22,369	64,647
1944	33,624	164	33,788	5,551	1,038	6,589	40,377	16,748	57,125
1945	43,919	77	43,996	8,427	1,535	9,962	53,958	22,163	76,121
1946	64,737	182	64,919	9,345	3,113	12,458	77,377	41,919	119,296
1947	43,912	95	44,007	7,642	1,372	9,014	53,021	29,869	82,890
1948 2/	84,275	214,645	298,920	23,571	96,335	119,906	418,826	42,853	461,679
1949	49,061	194,916	243,977	41,535	126,614	168,149	412,126	21,332	433,458
1950	46,591	173,000	219,591	38,985	179,709	218,694	438,285	22,610	460,895
1951	35,600	117,455	153,055	15,609	51,103	66,712	219,767	19,120	238,887
1952 3/	4,636	4,244	8,880	714	968	1,682	10,562	2,222	12,784
1953 4/	21,811	22,931	44,742	3,515	896	4,411	49,153	20,757	69,910
	From Mexico								
1940	0	44,715	44,715	29,921	336,207	366,128	410,843	602	411,445
1941	0	54,253	54,253	39,776	402,120	441,896	496,149	235	496,384
1942	57	64,575	64,632	13,503	377,407	390,910	455,542	81	455,623
1943	170	77,309	77,479	8,283	501,592	509,875	587,354	582	587,936
1944	0	25,531	25,531	310	275,259	275,569	301,100	26	301,126
1945	62	41,917	41,979	1,315	392,132	393,447	435,426	9	435,435
1946 5/	1,348	25,714	27,062	708	410,552	411,260	438,322	152	438,474
1947 6/	0	792	792	0	638	638	1,430	-	1,430
1948	-	-	-	-	-	-	-	-	-
1949	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-
1951	-	-	-	-	-	-	-	-	-
1952 7/	2,381	43,617	45,998	96	81,185	81,281	127,279	-	127,279
1953 8/	175	25,364	25,539	485	101,901	102,386	127,925	2	127,927

1/ Exports from Canada restricted by that country beginning June 15, 1942.

2/ Canadian restrictions lifted August 16, 1948.

3/ Imports prohibited beginning February 15, 1952, due to outbreak of foot-and-mouth disease in Canada.

4/ Embargo removed on imports of cattle from Canada, March 1, 1953.

5/ Imports prohibited beginning December 27, 1946 due to outbreak of foot-and-mouth disease in Mexico.

6/ Cattle imports shown in 1947 actually entered the United States in December 1946 after the customs office closed their books.

7/ Imports resumed September 1, 1952.

8/ Embargo on imports of cattle from Mexico effective May 23, 1953 following an outbreak of foot-and-mouth disease.

Foreign Agricultural Service. Compiled from Foreign Commerce and Navigation of the United States and official records of the Bureau of the Census.

Table 9 .- United States exports, shipments and imports of meat by countries, 1952 and 1953

	Exports and shipments to territories, product weight									Total exports and shipments to territories	
	Exports, by destination								Shipments		
	Canada	Nether-lands	Germany	Mexico	Cuba	Vene-zuela	All other	Total	to terri-tories 1/	Product weight	Carcass weight equivalent
	Mil. lb	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Beef and veal:											
1952	9.3	---	---	.1	1.2	.6	3.5	14.7	4.3	19.0	30
1953	11.7	.1	3.5	.2	2/	.6	22.8	38.9	8.1	47.0	59
Lamb & mutton:											
1952	.1	---	--	2/	2/	2/	.3	.4	---	.4	1
1953	.7	2/	---	2/	2/	2/	.6	1.3	---	1.3	2
Pork											
1952	4.5	13.1	13.9	1.3	34.9	3.5	25.6	96.8	40.8	137.6	154
1953	.1	6.9	35.7	2.3	22.4	1.8	10.5	79.4	42.8	122.2	134
Total meat 3/											
1952	14.6	13.1	13.9	1.7	36.4	6.0	32.3	118.0	59.1	177.1	185
1953	13.2	7.1	39.2	2.6	22.8	3.9	38.3	127.1	63.6	190.7	195

	Imports										
	Product weight, by Country of origin										Total imports, carcass weight equivalent
	Canada	Nether-lands	Denmark	Poland	Germany	Argentina	Uru-guay	Mexico	All other	Total	
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
Beef and veal 4/											
1952	1.4	---	---	---	---	107.6	16.9	56.4	70.5	252.8	382
1953	16.3	---	---	---	---	87.5	16.9	11.3	8.0	140.0	242
Lamb & mutton:											
1952	2/	---	---	---	---	---	---	---	5/ 6.2	6.2	6
1953	2/	---	---	---	---	---	---	---	5/ 3.1	3.1	3
Pork											
1952	13.5	20.3	8.9	9.4	3.7	---	---	---	1.2	62.0	71
1953	65.1	36.7	15.6	13.4	13.1	---	---	---	2.1	146.0	164
Total meat											
1952	19.9	20.3	8.9	9.4	3.7	107.6	16.9	56.4	77.9	321.0	459
1953	81.4	36.7	15.6	13.4	13.1	87.5	16.9	11.3	13.2	289.1	409

1/ Guam, Puerto Rico and Virgin Islands. 2/ Less than 50,000 pounds. 3/ Includes sausage, bologna and frankfurters canned and not canned, sausage ingredients, meat and meat products, canned n.e.c. and canned baby food. 4/ Regularly listed imports. Does not include estimated quantities of boneless beef imported. 5/ Nearly all imports from Australia.

Table 10.- Rank of States in number of cattle and calves on farms January 1, 1954

Rank	All cattle and calves		Beef cattle and calves (Cattle "not for milk")			
			Total		Beef cows 2 years and over	
	State	Number	State	Number	State	Number
		Thous.		Thous.		Thous.
1	Texas	8,587	Texas	7,033	Texas	3,843
2	Iowa	5,746	Iowa	4,044	Nebraska. . . .	1,508
3	Nebraska. . . .	4,752	Nebraska.	4,032	Kansas.	1,369
4	Kansas.	4,298	Kansas.	3,452	Oklahoma. . . .	1,227
5	Wisconsin . . .	4,275	South Dakota. . .	2,603	South Dakota. .	1,182
6	Missouri. . . .	3,950	Missouri.	2,453	Montana	1,036
7	Illinois. . . .	3,946	Oklahoma.	2,432	Missouri. . . .	995
8	Minnesota . . .	3,900	Illinois.	2,407	Iowa	891
9	California . .	3,349	Montana	2,105	Florida	818
10	Oklahoma. . . .	3,315	California. . . .	1,897	Colorado. . . .	779
11	South Dakota. .	3,205	Colorado	1,801	California. . .	761
12	Ohio	2,488	Minnesota	1,468	Louisiana . . .	749
13	New York. . . .	2,356	Florida	1,386	New Mexico. . .	644
14	Montana	2,281	Louisiana	1,294	Illinois. . . .	612
15	Colorado. . . .	2,096	North Dakota. . .	1,220	Mississippi . .	580
16	Indiana	2,095	Indiana	1,114	Alabama	575
17	Michigan. . . .	2,043	New Mexico. . . .	1,102	Wyoming	532
18	Mississippi . .	2,039	Wyoming	1,101	North Dakota. .	499
19	Pennsylvania .	1,954	Mississippi . . .	1,100	Oregon	470
20	North Dakota. .	1,881	Alabama	1,093	Arizona	430
21	Kentucky . . .	1,880	Oregon	1,043	Arkansas. . . .	384
22	Alabama	1,879	Kentucky	922	Georgia	355
23	Tennessee . . .	1,845	Ohio	887	Kentucky. . . .	351
24	Louisiana . . .	1,842	Idaho	839	Virginia . . .	323
25	Florida	1,679	Arizona	830	Tennessee . . .	316
26	Arkansas. . . .	1,566	Arkansas	828	Idaho	312
27	Georgia	1,439	Tennessee	818	Nevada	307
28	Oregon	1,429	Georgia	810	Indiana	300
29	Virginia . . .	1,410	Virginia.	696	Minnesota . . .	288
30	Idaho	1,253	Washington. . . .	633	Utah	261
31	Wyoming	1,178	Nevada	570	Washington. . .	236
32	New Mexico . .	1,175	Utah	553	Ohio	170
33	Washington. . .	1,084	Michigan.	484	North Carolina.	140
34	North Carolina.	961	Wisconsin	425	West Virginia .	127
35	Arizona. . . .	909	North Carolina. .	355	South Carolina.	100
36	Utah	740	Pennsylvania. . .	337	Michigan . . .	76
37	West Virginia .	617	West Virginia . .	291	Pennsylvania .	75
38	Nevada	607	South Carolina. .	233	Wisconsin . . .	43
39	Maryland. . . .	540	New York	143	Maryland . . .	36
40	South Carolina.	497	Maryland	139	New York . . .	30
41	Vermont	489	Maine	29	Maine	8
42	Maine	253	Vermont	22	Delaware. . . .	5
43	New Jersey. . .	230	New Jersey. . . .	17	New Jersey. . .	3
44	Massachusetts .	198	Delaware	15	Vermont	3
45	Connecticut . .	190	Massachusetts . .	13	Connecticut . .	2
46	New Hampshire .	122	Connecticut . . .	11	Massachusetts .	2
47	Delaware . . .	80	New Hampshire . .	9	New Hampshire .	2
48	Rhode Island. .	29	Rhode Island. . .	1	Rhode Island .	---
United States total. .		94,677		57,090		23,755

Table 14.- Rank of States in number of milk cows and sheep on farms January 1, 1954 and pigs saved 1953

Rank	Milk cows 2 years and over		All sheep and lambs		Number pigs saved 1/	
	State	Number	State	Number	State	Number
		Thous.		Thous.		Thous.
1	Wisconsin	2,604	Texas	5,291	Iowa	18,579
2	Minnesota	1,542	Wyoming	2,057	Illinois	9,884
3	New York	1,497	California	2,034	Indiana	7,375
4	Iowa	1,145	Montana	1,749	Missouri	5,613
5	Texas	1,052	Colorado	1,686	Minnesota	5,581
6	Ohio	1,050	Utah	1,475	Ohio	5,156
7	Missouri	1,044	Iowa	1,348	Nebraska	3,499
8	Pennsylvania	1,029	Ohio	1,325	Wisconsin	3,103
9	Michigan	982	New Mexico	1,317	Georgia	2,291
10	Illinois	940	South Dakota	1,120	South Dakota	2,121
11	California	900	Idaho	1,074	North Carolina	1,581
12	Kentucky	736	Minnesota	990	Alabama	1,450
13	Tennessee	708	Missouri	850	Kentucky	1,383
14	Indiana	684	Nebraska	804	Tennessee	1,325
15	Mississippi	624	Illinois	753	Michigan	1,306
16	Kansas	568	Oregon	699	Kansas	1,272
17	Oklahoma	558	Kentucky	668	Texas	1,187
18	Virginia	494	Kansas	653	Virginia	980
19	Arkansas	485	North Dakota	514	Pennsylvania	959
20	Alabama	471	Indiana	503	Florida	765
21	Nebraska	455	Arizona	473	South Carolina	736
22	North Dakota	430	Nevada	469	Oklahoma	655
23	North Carolina	411	Michigan	421	Mississippi	653
24	Georgia	395	Washington	329	North Dakota	600
25	Louisiana	366	Virginia	324	Arkansas	543
26	South Dakota	354	West Virginia	317	Louisiana	539
27	Vermont	317	Wisconsin	312	California	535
28	Washington	291	Tennessee	293	Maryland	364
29	Maryland	275	Pennsylvania	257	New York	275
30	Idaho	254	New York	160	Colorado	234
31	Oregon	242	Oklahoma	159	West Virginia	212
32	West Virginia	231	Louisiana	122	Montana	185
33	Colorado	187	Mississippi	88	Oregon	167
34	South Carolina	176	North Carolina	49	Idaho	165
35	Florida	164	Maryland	45	Washington	162
36	New Jersey	158	Arkansas	44	New Jersey	130
37	Maine	132	Maine	25	Massachusetts	116
38	Massachusetts	131	Alabama	23	Utah	83
39	Connecticut	122	Georgia	15	New Mexico	63
40	Utah	115	New Jersey	14	Wyoming	59
41	Montana	112	Massachusetts	12	Delaware	57
42	New Hampshire	73	Vermont	11	Maine	45
43	Arizona	52	Connecticut	9	Connecticut	34
44	New Mexico	50	New Hampshire	9	Arizona	31
45	Wyoming	48	South Carolina	4	Nevada	22
46	Delaware	43	Delaware	3	Vermont	21
47	Rhode Island	21	Florida	3	New Hampshire	17
48	Nevada	17	Rhode Island	2	Rhode Island	6
United States total		24,735		30,902		82,119

1/ Total of pigs saved from spring and fall pig crops of 1953.

Table 12.- Rank of States in liveweight of farm production of meat animals, 1953 1/

Rank	Cattle and calves		Sheep and lambs		Hogs	
	State	Production	State	Production	State	Production
		Mil. lb.		Mil. lb.		Mil. lb.
1	Texas	2,331	Texas	120	Iowa	4,175
2	Iowa	2,116	California	107	Illinois	2,206
3	Nebraska	1,657	Colorado	95	Indiana	1,615
4	Kansas	1,531	Idaho	84	Minnesota	1,218
5	Illinois	1,276	Wyoming	83	Missouri	1,198
6	Missouri	1,167	Montana	79	Ohio	1,056
7	Minnesota	1,116	Iowa	77	Nebraska	787
8	Oklahoma	996	Minnesota	62	Wisconsin	654
9	South Dakota	965	Utah	59	South Dakota	475
10	California	960	Ohio	59	Georgia	374
11	Wisconsin	924	Missouri	55	North Carolina	322
12	Colorado	666	South Dakota	51	Tennessee	291
13	Montana	659	Kentucky	47	Kentucky	288
14	Indiana	650	New Mexico	47	Kansas	285
15	Ohio	650	Illinois	45	Alabama	267
16	North Dakota	485	Nebraska	41	Michigan	264
17	Michigan	476	Oregon	39	Texas	249
18	Kentucky	456	Indiana	31	Virginia	213
19	New York	452	Kansas	31	Pennsylvania	202
20	Tennessee	396	North Dakota	27	Oklahoma	146
21	Oregon	379	Michigan	23	South Carolina	139
22	Mississippi	367	Nevada	21	Mississippi	136
23	Pennsylvania	363	Washington	21	North Dakota	130
24	Louisiana	362	Virginia	20	Arkansas	115
25	Arkansas	354	West Virginia	20	Florida	107
26	Wyoming	349	Arizona	19	California	103
27	Alabama	341	Tennessee	16	Louisiana	79
28	New Mexico	328	Wisconsin	16	Maryland	75
29	Idaho	322	Pennsylvania	10	New York	57
30	Virginia	312	Oklahoma	8	Colorado	56
31	Washington	282	New York	7	West Virginia	53
32	Florida	267	Mississippi	2	Montana	42
33	Arizona	256	Louisiana	2	Washington	37
34	Georgia	246	Maryland	2	Idaho	36
35	Utah	197	North Carolina	2	Oregon	36
36	Nevada	155	Arkansas	2	New Jersey	26
37	North Carolina	148	Maine	1	Massachusetts	23
38	West Virginia	129	New Jersey	1	Utah	15
39	Maryland	106	Alabama	1	Wyoming	14
40	South Carolina	82	Massachusetts	1	New Mexico	13
41	Vermont	78	Connecticut	2/	Delaware	11
42	Maine	51	Vermont	2/	Maine	10
43	New Jersey	47	Georgia	2/	Connecticut	8
44	Connecticut	35	New Hampshire	2/	Arizona	6
45	Massachusetts	34	Delaware	2/	Vermont	5
46	New Hampshire	23	Rhode Island	2/	Nevada	4
47	Delaware	15	South Carolina	2/	New Hampshire	4
48	Rhode Island	4	Florida	2/	Rhode Island	1
United States total		25,561		1,434		17,625

1/ Liveweight produced during year by livestock on farms. Preliminary data.

2/ Less than 500,000 pounds.

higher in July and August than at their low in December. Sharp seasonal trends are a challenge to producers who seek to regulate both their farrowings and their marketing plans so as to take advantage of higher price periods and insofar as possible to avoid selling in low price months.

The general pattern of seasonal price changes is fairly regular. Prices are highest in the summer and lowest in November-December, and they rise to a secondary peak about February. (See table 13.)

Seasonal trends differ somewhat by weight groups. Prices of hogs of the lighter weights turn up and down earlier than heavier hogs. Hogs of 180-200 pounds, for instance, touch their summer peak about August 1 and then decline, while 240-270 pound hogs ordinarily are highest about mid-August and do not go down much until September. (See chart, page 26.) Seasonal price changes come first for light hogs simply because market movements of the younger, lighter hogs are in advance of those for heavier hogs.

The differences in price trend for hogs of various weights are important to marketing programs of producers. Obviously, a producer will gain if, without too much extra cost, he can prepare his hogs for marketing in a high price period. More than that, he can utilize a knowledge of seasonal trends in deciding at what weight to sell his hogs. At some seasons it pays to hold hogs to heavier weights. At other times more is gained by selling light.

In making these decisions producers can compare seasonal price behavior for successive weight groups. A hog held an extra week or two moves into a heavier weight classification. Thus, the market price for a 190 pound barrow on September 1 is to be compared with the price for a 220 pound hog on September 15 or a 250 pound hog on October 1, if the daily gain is 2 pounds.

Table 13.- Index of seasonal variation in price of barrows and gilts at Chicago

Month	Weight range				Average all weights 1/
	180-200 lb.	200-220 lb.	220-240 lb.	240-270 lb.	
January	97	95	93	93	94
February	99	97	96	95	96
March	96	96	97	95	95
April	92	93	94	93	93
May	97	98	99	98	98
June	104	104	104	104	103
July	113	113	112	112	113
August	113	114	113	114	113
September	107	109	110	112	110
October	99	100	101	102	102
November	91	91	91	92	92
December	92	90	90	90	91

1/ Applies to weighted average prices of all sales. This index therefore is not an average of indexes for individual weight classes.

A method of making such comparisons is provided in table 14. Normal seasonal variations in prices for hogs of each of 3 weights are shown in dollars per 100 pounds, based on an assumed average of $20.00 for 200-220 pound hogs for the entire year. This is an arbitrary figure chosen for illustration. Any other base price could be used, with all values raised or lowered in proportion.

The prices are derived, with interpolations where necessary, from the indexes in table 13. Prices for hogs lighter and heavier than 200-220 pounds are scaled up or down according to actual 1947-53 average price ratios by weights.

Distinctive feature of the table is that it allows comparisons across weight groups. With arrows as guides, a "normal" price for hogs of one weight can be compared with a "normal" price for hogs 30 pounds heavier 2 weeks later, and for hogs 60 pounds heavier 4 weeks later. Moreover, the price difference is converted into the value, per 100 pounds, of the added weight gain. Thus, a 190 pound barrow that on January 1 could be sold for $18.80 would normally be slightly lower priced as a 220 pound barrow on January 15--at $18.75. In taking this small price loss, the producer is paid at the rate of $18.50 per 100 pounds for the 30 pounds added.

An example will show how the calculations are made. A 190 pound hog at $18.80 is worth $35.70. A 220 pound hog sold for $18.75 two weeks later brings $41.25. The increase in value for the 30 pounds is $5.55, which amounts to an $18.50 rate per 100 pounds. This price for added weight is lower than either the original or final price of the entire hog because it reflects the price loss of 5 cents taken on the entire weight.

These calculated values for added weight gain show how well a producer profits by holding hogs to heavier weights in a season of rising prices, and how much he gains by selling light ahead of a price downtrend. In the May-July price uptrend, values of $23.80 to $27.70 (based on an annual average price of $20.00 for medium-weight hogs) are returned for the extra weight between 190 and 220 pounds, and $20.95 to $25.55 for the weight between 220 and 250 pounds. But holding hogs at the middle of the fall price decline can return as little as $13.90 or $9.80 for the two extra weights.

Aside from its reference value, the main conclusion from the table is that many producers still fail to adjust as fully to seasonal price trends as would be to their best interest. They are, however, adjusting better than formerly, as has been noted.

Cost of Extra Gain

The data in table 14 should be used with regard to two other factors; (1) The cost of putting on added gain; (2) the uniformity of the "normal" seasonal price trends.

The cost of additional gain can be calculated approximately for prices of corn and other feed prevailing at any time. The cost naturally is much greater when feed is high in price than when it is lower. Quantities of feed required can be estimated by a producer from his own

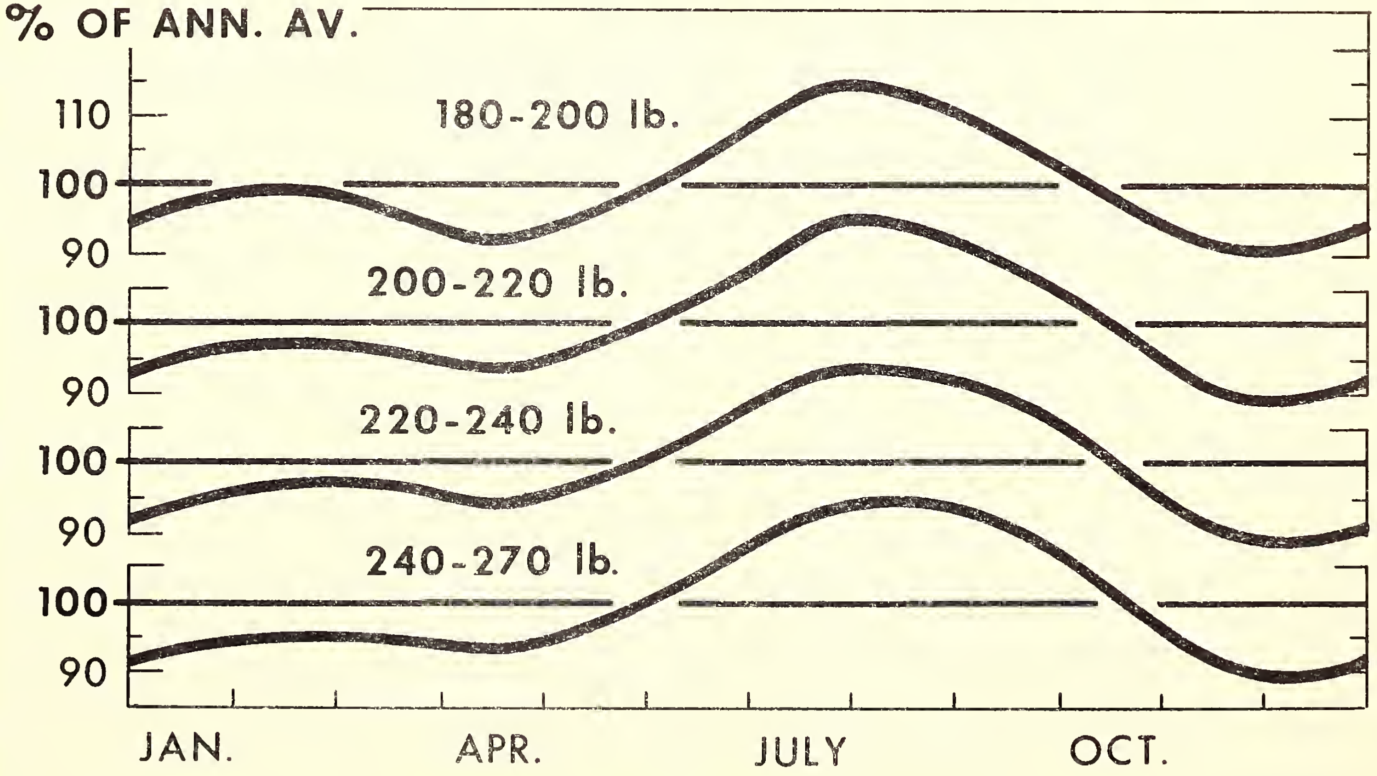
Table 14.- Normal relationships between prices of hogs of 3 weights and value of the weight gained by holding 2 weeks 1/

Date	Normal price relationships						
	190 pound hogs, per 100 pound	Value of weight gain		220 pound hogs, per 100 pound	Value of weight gain		250 pound hogs, per 100 pound
		30 lb.	per 100 lb.		30 lb.	per 100 lb.	
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
January 1	18.80			18.35			17.95
		5.55	18.50		5.35	17.85	
January 15	19.30			18.75			18.25
		5.35	17.85		5.13	17.10	
February 1	19.55			19.10			18.55
		5.19	17.30		4.73	15.75	
February 15	19.70			19.25			18.70
		5.10	17.00		4.57	15.25	
March 1	19.50			19.35			18.75
		5.30	17.65		4.32	14.40	
March 15	19.10			19.25			18.75
		5.44	18.15		3.97	13.25	
April 1	18.55			18.95			18.55
		5.84	19.45		4.05	13.50	
April 15	18.30			18.65			18.30
		7.14	23.80		5.70	19.00	
May 1	18.65			19.05			18.70
		7.76	25.85		6.29	20.95	
May 15	19.30			19.65			19.30
		7.66	25.55		6.39	21.30	
June 1	19.90			20.15			19.85
		7.84	26.15		6.75	22.50	
June 15	20.70			20.75			20.45
		8.01	26.70		7.25	24.15	
July 1	21.60			21.50			21.15
		8.31	27.70		7.66	25.55	
July 15	22.50			22.45			22.00
		7.39	24.65		6.45	21.50	
August 1	22.80			22.80			22.35
		6.53	21.75		5.76	19.20	
August 15	22.50			22.65			22.35
		6.44	21.45		5.79	19.30	
September 1	21.95			22.35			22.25
		6.35	21.15		5.63	18.75	
September 15	21.30			21.85			21.90
		5.82	19.40		4.75	15.85	
October 1	20.50			21.05			21.10
		5.16	17.20		3.73	12.45	
October 15	19.70			20.05			20.00
		4.35	14.50		2.94	9.80	
November 1	18.85			19.00			18.80
		4.17	13.90		3.30	11.00	
November 15	18.10			18.15			18.05
		4.75	15.85		4.27	14.25	
December 1	17.95			17.80			17.70
		5.39	17.95		5.04	16.80	
December 15	18.30			17.95			17.70
		5.54	18.45		5.39	17.95	
January 1	18.80			18.35			17.95

1/ Based on an assumed average price of $20.00 for 200-220 pound weight; on normal post war seasonal variation in prices of each weight; and on 1947-53 average price ratios between various weights.

An example showing how these calculations are made will be found in the middle of page 26.

SEASONALITY IN BARROW AND GILT PRICES, BY WEIGHT GROUPS



CHICAGO PRICES; NORMAL FOR POSTWAR YEARS (1947-53)

U. S. DEPARTMENT OF AGRICULTURE NEG. 679-54(4) AGRICULTURAL RESEARCH SERVICE

Seasonal price changes are roughly similar for all weights of barrows and gilts, yet they are enough different to affect farmers' decisions in production and marketing. Generally, the lighter weight groups reach peaks and troughs earlier than do the heavier groups. In a typical year, producers profit by holding hogs to heavy weight in early summer and by selling at light weight in late summer and early fall.

In a year when hog prices are high or rising it generally pays to hold hogs a little longer than usual. When prices are low or on a long downtrend, selling early and at lighter weights is better.

Over the longer run the amount of seasonal price fluctuation may diminish as more and more pigs are farrowed in winter and summer seasons.

experience. He can also refer to data on average feed requirements as guides. A Department of Agriculture report states: "Generally, it takes about 4.5 bushels of corn or its equal in other feeds to fatten a 200-pound hog up to 250 pounds. It takes around 4.6 bushels of corn or its equal in other feed to put 50 pounds of gain onto a 225-pound hog, 4.8 bushels on a 250-pound hog, and 4.9 bushels to put 50 pounds of gain on a 275-pound hog, fattening it up to 325 pounds.

"Feed is usually about four-fifths of the total cost of fattening hogs. You would just about break even if you got a return of $1.25 for each $1 worth of feed you put into them." 3/

These data can be used to estimate costs of 30 pounds of gain at different prices of corn. Calculations are given in table 15. These costs can be compared directly with the figures in boxes in table 14.

Table 15.- Cost of putting 30 pounds of gain on hogs weighing 190 and 220 pounds at several assumed prices for corn

Price of corn, per bushel	Total cost of gain 1/			
	190 lb. hog fed to 220 lb.		220 lb. hog fed to 250 lb.	
	Cost of 30 pounds	Cost per 100 lb.	Cost of 30 pounds	Cost per 100 lb.
Dollars	Dollars	Dollars	Dollars	Dollars
1.30	4.23	14.10	4.40	14.65
1.40	4.56	15.20	4.74	15.80
1.50	4.88	16.30	5.07	16.90
1.60	5.21	17.35	5.42	18.05
1.70	5.52	18.40	5.74	19.15

1/ Calculated on the basis that 2.6 bushels of corn or its equivalent are required to fatten a hog from 190 to 220 pounds and 2.7 bushels from 220 to 250 pounds. To the cost of feed, an extra 25 percent is added as the approximate costs other than feed.

Derived from data in "Feed Consumption and Marketing Weight of Hogs" by L. Jay Atkinson and John W. Klein. USDA Tech. Bul. 894, 1945.

An obvious observation is that hogs can profitably be held longer and to heavier weights when prices of corn are low in relation to the price of hogs than when corn prices are higher. Corn at $1.60 would bear about an average relationship to $20.00 hogs. At that price, the gain between 190 and 220 pounds would cost approximately $17.35 per 100 pounds and that between 220 and 250 pounds would cost $18.05. At this normal price relationship between hogs and corn it pays to hold hogs to 220 pounds at several seasons in an average year, but at fewer times to hold to 250 pounds. At a lower price of corn---$1.30 or $1.40--hogs can more often be fed to heavier weights. At a higher corn price feeding to a heavier market weight is profitable only at particular seasons such as early summer.

3/ "How Heavy Should I Feed My Hogs?" USDA, BAE, AIS No. 78, Nov. 1948.

Price trends not always "normal"

Normal seasonal trends in prices of hogs are followed more regularly at some seasons of the year than at others. Prices almost always rise from mid-December to mid-January. They also usually rise in January-February, May-June and June-July. They almost invariably decline in October-November and typically fall also in September-October, November-December, and March-April. Trends between other pairs of months are less consistent.

Conditions in some years cause marked departures from normal seasonal trends and from normal differences by weights. In early 1954 the packer demand was so strong for the short supply of hogs that no April dip in prices took place. Because of the increase in market supply of hogs expected after mid-summer, the seasonal price peak probably will be reached earlier and the decline will start ahead of the usual schedule. Also, with hogs relatively scarce the heavier weights have been selling nearly as high as the medium weights. Thus, both the seasonal pattern and the differentials between weights are departing somewhat from normal this year.

In general, producers will profit by assuming prices will follow a normal seasonal pattern instead of disregarding seasonality entirely. They will profit even more if they will use outlook information to guide them in anticipating how seasonality for each weight and the price differentials between weights may differ from normal in a given year.

In a year when hog prices are on a long uptrend, seasonal upswings will be prolonged and downswings curtailed. It is usually profitable to feed to heavier weights than in an average year. When prices are declining, the downswings are longer and upswings shorter, and marketing at lighter weights than usual is often a profitable practice.

Thus we can combine these general rules into the summary statement given below the chart on page 26: "In a year when hog prices are high or rising it generally pays to hold hogs a little longer than usual. When prices are low or on a long downtrend, selling early and at lighter weights is better."

PROJECTIONS OF CATTLE NUMBERS AND BEEF SUPPLY

Numbers of cattle on farms increased from 77 million head in 1949 to almost 95 million in 1954. The number of cattle and calves slaughtered, after dropping to 26.0 million in 1951, rose to 36.9 million in 1953. The supply of beef increased so much that consumption per person reached 77 pounds last year. This was 22 pounds above the 55 pounds consumed in 1951 and was the highest consumption rate in 54 years of record.

Inventory numbers appear to be leveling off. The increase in 1953 was only 1 million compared with 6 million in each of the two previous years. The number of beef heifers on farms this January was reduced 4 percent, another indication that increases in beef cattle are near an end.

Table 16.- Number of cattle on farms, number slaughtered, and beef supply, 1949-53, forecast for 1954, and projections for 1955-57

Year	Number cattle and calves on farms Jan. 1	Number slaughtered			Av. dressed weight per head slaughtered		Beef and veal produced		Beef and veal consumed per person		
		Cattle	Calves	Cattle and calves	Cattle	Calves	Beef	Veal	Beef	Veal	Beef and veal
	1,000 head	1,000 head	1,000 head	1,000 head	Lb.	Lb.	Mil. lb.	Mil. lb.	Lb.	Lb.	Lb.
1949	76,830	18,765	11,398	30,163	503	117	9,439	1,334	63.0	8.8	71.8
1950	77,963	18,624	10,504	29,128	512	117	9,538	1,230	62.5	7.9	70.4
1951	82,025	17,100	8,913	26,013	519	119	8,843	1,061	55.2	6.6	61.8
1952	87,844	18,668	9,408	28,076	519	125	9,667	1,173	61.2	7.1	68.3
1953	93,637	24,606	12,300	36,906	1/508	1/128	12,462	1,569	76.7	9.5	86.2
Forecast for 1954 2/	94,677	25,300	13,400	38,700	500	127	12,600	1,700	76	10.2	86
	Projections based on normal cattle cycle 3/										
1955	95,000-95,500	25,600	14,000	39,600	490	127	12,600	1,800	75	10	85
1956	94,500-95,000	25,600	14,600	40,200	485	126	12,400	1,000	73	11	84
1957	93,000-93,500										

1/ Estimate. Actual weight not yet reported.

2/ Number on farms is preliminary estimate; all other values are forecasts.

3/ If cattle numbers should complete an approximately normal cycle, the inventory, slaughter, and beef supply would be about as shown here. However, weather conditions or other factors could interfere with normal developments. A severe drought this year would prevent a further increase in numbers, while unusually favorable weather would probably allow a greater further uptrend than is projected.

If trends in previous cycles should be approximately followed, the number of cattle and calves on farms would continue upward for another year or two. The maximum number would be 95 or perhaps 96 million. In the projections shown in table 16, the maximum is assumed to be reached in January 1955, and numbers are slightly lower the following January. However, it is equally likely that numbers would be held or increased a little on the latter date, and that reductions would first appear in January 1957.

Whether the current cycle follows the normal course will depend on the weather and other factors. Very unfavorable weather in 1954 would prevent an increase in inventories next January while good weather would probably result in a greater increase than is projected here.

Beef Supply to Stay Large

The main conclusion from table 16 is that the beef supply will stay large but will not increase much more. Cow numbers and the size of the annual calf crop are approaching stability, while if the pattern of previous cycles is followed, much of the further rise in slaughter will be as calves. Also, the average production of beef per head of cattle slaughtered will decrease. Not only will many cattle be slaughtered at lighter weights, but more will be cows and other classes that have a lower dressing percentage and lighter carcass weight.

As the population is growing, the supply of beef for consumption per person is likely to remain at 75 to 76 pounds. This is a large supply compared with previous years, but no larger than the 1953 consumption.

After numbers on farms turn down the beef supply will gradually diminish. It is not possible to know in advance how fast numbers will be decreased. Conceivably, there could be a very sharp reduction in a single year. The beef supply would thereby be pushed up temporarily to a new high, then would be reduced greatly afterward. Another possibility is that cattle numbers might hold close to 95 million for several years, providing a large supply of beef year after year. In the data of table 16, the inventory is assumed to drop a little the first year and somewhat faster the second year, but not enough for a temporary upsurge in beef output.

Projections of a future beef consumption at 70 pounds per person or more were made on several occasions in past years. The 75-77 pound level actually achieved was under-forecast by only a few pounds. The maximum number of cattle and calves on farms, previously projected at 99 to 100 million, now seems likely to be no more than 96 million. The productivity of the cattle herd is greater than had been expected. The calf crop has been larger and cattle have been slaughtered at slightly heavier weights than previously thought likely.

How the Supply of Livestock Products and Other Foods has been Increased since 1910

by Harold F. Breimyer

From 1910 to 1953 the output of all livestock products in the United States was more than doubled. Production of red meat was increased from 14 billion pounds to almost 25 billion. Production of milk increased at about the same rate. Egg output rose from 2.5 to 5.7 billion dozens. Production of chicken meat soared from 1.4 billion pounds in 1910 to 3.8 billion in 1953.

Production of other foods--cereals, fruits, vegetables--increased too as the food output was expanded to meet the needs of our rapidly growing population.

In 1910 the population of the United States was 94 million. By 1953 there were 162 million people.

The remarkable fact is that the 162 million consumers of 1953 were not only fed as well as their predecessors of 1910 but were fed better. The average diet of 1953 is rated as 17 percent better than that of 1910. Some of the improvement is in quantity of food but most is in quality, for it contains more of the foods consumers want. It included more meat, more milk, eggs and other dairy and poultry products, more fruits and vegetables. Less potatoes and cereals were eaten per person last year than in 1910.

How was this great increase achieved in the supply of animal foods and all foods, and of the feed necessary to produce animal foods?

Until this century, the chief method used for increasing the food supply was increasing the area of land cultivated. As a westward-moving population entered new lands the country's total cultivated area was expanded. The crop area continued to increase until about 1920. Since then about as much land has been taken out of crop use--going into cities or industrial sites or back to grass or forest--as has been added through reclamation or by plowing rangeland.

For the entire period since 1910 the expansion in cropland area contributed only about 10 percent of the increase in the food supply.

The estimate, as well as others that follow, is based on an analysis of the overall expansion of food consumption of the United States civilian population beginning in 1910. The study compared total consumption in 1910-14 with that in 1947-50 and apportioned the increase into the 9 principal contributing factors. The 9 factors are:

1. Change in cropland acreage.
2. Change in cropland made available for food crops by reductions in acreage of non-food crops.
3. Change in feed obtained from pasture.
4. Change in cropland made available for food crops due to changing numbers of horses and mules.
5. Change in crop yields per acre.
6. Change in rate of livestock output per ton of feed.
7. Change in cropland available for other food due to reduction in acreage used to produce butter.
8. Change in quantity of food exported and imported.
9. Change in quantity of food procured for the armed forces.

The results, showing the increase in "consumption units" contributed by each factor, are presented in table 17 and the accompanying chart. The "unit" is a measure of consumption; it makes possible accurate comparisons but its exact meaning or value is not important. Data are given in the table for each year, and a percentage breakdown of the overall 40-year increase is shown in the last line. The chart utilizes 5-year moving averages of the annual data.

Less Cropland for Cotton

Since the cropland area has not expanded much, most of the increased food has been obtained by getting more from the cropland we have had. One way is to use more of it for food. Some increase in land devoted to food has resulted from decreases in the acreage used for nonfoods. Since 1926 the acreage of cropland planted to cotton has been reduced substantially. Less cotton is being exported now, and rising yields per acre have made fewer acres necessary. Acreages of several other nonfood crops such as tobacco have risen but not as much as cotton acreage has fallen. The reduction in nonfood crops has provided 2.5 percent of the total increase in food consumption from 1910-14 to 1947-50.

Less Cropland Now Needed for Workstock

A much greater saving of cropland arises from the displacement of horses and mules. At one time horses and mules consumed a sizable part of the grain and hay produced on farms. Now they take only a small part. That previously consumed by them is now fed to other livestock, to produce the various animal foods.

Horse numbers were at their peak of 21.4 million in 1915. The 3.4 million in 1954 are only a sixth of that number. Mules were most numerous in 1925, when almost 6 million were on farms. The 1954 number of 1.6 million was a little over one-fourth the high point. The feed produced on 75 million acres of cropland has been turned from workstock to cattle, hogs, sheep and poultry.

The replacement of workstock with industrial sources of power has made possible 15 percent of the total increase in food consumption from 1910-14 to 1947-50.

Higher Yields per Acre

At one time, new cropland was the main source of new food. Now the raising of more food from each acre is the biggest single source.

Average yields per acre rose slowly until the middle 1930's but have increased rapidly the last 20 years. In 1947-50 the increase in yields of food and feed crops accounted for 44 percent of the total gain in food consumption since 1910-14.

Higher yields are the composite result of many changes in agriculture, including better farming methods and land use, and increased application of industrial materials such as machinery,fertilizers and pesticides. Farmers have learned to use land in ways to which it is best adapted, and to shift from low-yielding to high-yielding crops. They now plant hybrid seed, follow better rotations, and take advantage of cover crops and a great many conservation and yield-lifting practices. Industrial products employed in agriculture include modern machinery, fertilizer and lime, insecticides and fungicides and many others.

More Meat per Ton of Feed

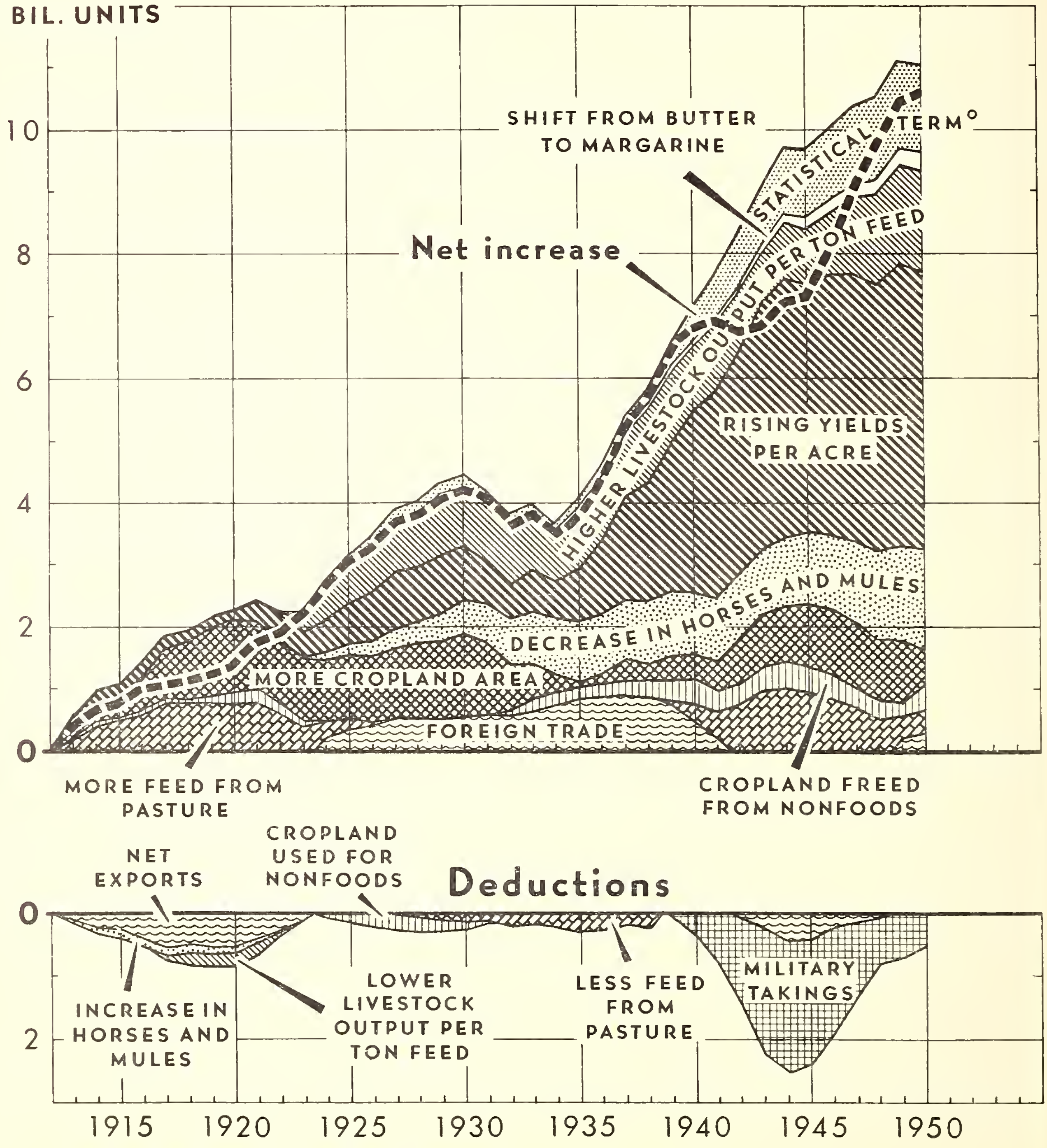
Some progress has been made in getting more livestock products from each bushel or ton of feed fed, although the accomplishments have been less than in crop production. The physiology of animals does not lend itself to spectacular gains in the conversion of feed into livestock products. Also, most livestock research has been directed toward getting more milk, meat or eggs per animal, not more per unit of feed. Recently, however, notable success has been achieved in lowering the feed requirements for producing broilers and, through use of antibiotics and other supplements, in producing hogs.

Table 17.- Aggregate food consumption and apportionment of increase since 1910-14 into specified sources

Year	Aggregate consumption			Change from 1910-14 average attributed to change in:									
	Current value	Year-to-year adjustment 1/	Adjusted value 1/	Acres of cropland harvested	Acres of cropland freed from non-food crops 2/	Feed obtained from pasture	Number of horses and mules	Yield of crops per harvested acre	Rate of output per ton of feed fed	Consumption from butter to margarine	Foreign trade, all foods 3/	Military takings of food 4/	Inter-action term 4/	Total 5/
	Million units	Million units	Million units	Million units	Million units	Million units	Million units	Million units	Million units	Million units	Million units	Million units	Million units	Million units
1910-14 Av.	12,539	+ 55	12,594	---	---	---	---	---	---	---	---	---	---	---
1915	13,074	+ 1,161	14,235	381	258	910	- 122	831	- 63	---	- 596	---	41	1,640
1916	13,130	- 430	12,700	381	68	669	- 236	143	- 369	---	- 502	---	- 47	107
1917	13,283	+ 879	14,162	723	0	514	- 113	424	206	---	- 229	---	43	1,568
1918	13,688	- 421	13,267	1,218	- 8	485	- 98	- 388	119	---	- 626	---	- 28	674
1919	13,953	- 49	13,904	1,294	175	1,124	- 117	43	- 433	---	- 710	---	- 66	1,310
1920	14,034	+ 367	14,401	1,142	137	923	- 116	699	- 632	---	- 319	---	- 27	1,808
1921	13,865	- 401	13,464	1,104	411	654	- 58	- 75	- 378	15	- 722	---	- 80	871
1922	14,753	- 1	14,752	952	293	508	- 46	453	164	30	- 275	---	78	2,157
1923	15,248	- 42	15,206	913	69	597	- 15	547	291	34	72	---	103	2,611
1924	15,687	- 1,053	14,634	952	- 176	272	77	527	277	30	- 3	---	84	2,040
1925	15,717	- 67	15,650	1,142	- 274	- 54	240	358	962	38	555	---	89	3,056
1926	16,160	- 295	15,865	1,104	- 335	19	231	705	788	49	573	---	137	3,271
1927	16,252	+ 432	16,684	1,066	- 54	130	314	1,121	859	65	363	---	225	4,089
1928	16,476	- 41	16,435	1,180	- 206	- 124	297	1,279	672	80	432	---	230	3,840
1929	16,732	- 217	16,515	1,332	- 251	- 69	346	1,032	701	69	538	---	221	3,919
1930	16,733	- 575	16,158	1,484	- 258	- 237	516	404	913	30	537	---	176	3,561
1931	16,778	+ 653	17,431	1,332	- 57	- 249	730	874	1,448	23	502	---	235	4,838
1932	16,455	+ 862	17,317	1,560	115	88	737	702	734	38	502	---	248	4,724
1933	16,555	- 741	15,814	381	346	- 78	740	352	666	49	589	---	176	3,221
1934	16,814	- 2,548	14,266	- 990	328	- 647	974	301	1,024	107	520	---	54	1,671
1935	16,491	+ 708	17,199	571	282	97	1,044	1,236	237	91	938	---	109	4,605
1936	17,204	- 1,550	15,654	- 266	99	- 517	895	479	1,069	103	1,095	---	103	3,060
1937	17,364	+ 1,502	18,866	647	11	- 323	1,073	1,976	1,642	84	990	---	172	6,272
1938	17,652	+ 827	18,479	723	430	143	972	1,927	654	57	642	---	337	5,885
1939	18,365	+ 413	18,778	0	384	- 281	1,007	2,632	1,356	65	642	---	379	6,184
1940	18,869	+ 584	19,473	343	373	54	1,039	2,575	1,096	80	850	---	470	6,880
1941	19,350	+ 481	19,831	457	445	621	937	3,103	846	103	538	- 418	606	7,238
1942	19,292	+ 1,043	20,335	609	323	975	1,013	4,511	1,026	167	- 542	- 1,306	965	7,741
1943	18,916	+ 79	18,995	990	228	905	1,063	4,081	908	164	- 786	- 2,264	1,112	6,401
1944	19,355	- 1,224	18.131	1,180	426	1,076	1,112	3,742	478	175	- 351	- 3,274	972	5,536
1945	19,888	- 149	19,739	952	471	1,287	1,169	4,218	752	160	- 20	- 2,926	1,082	7,145
1946	22,172	- 490	21,682	875	579	757	1,223	4,405	1,053	213	- 525	- 766	1,273	9,087
1947	22,165	- 1,257	20,908	1,028	247	661	1,321	3,582	1,174	293	- 316	- 801	1,125	8,314
1948	21,817	+ 1,257	23,074	1,104	243	345	1,441	4,798	1,568	247	223	- 836	1,348	10,481
1949	22,182	+ 663	22,845	1,294	57	371	1,512	4,382	1,651	263	49	- 766	1,438	10,251
1950	22,535	+ 632	23,167	571	441	369	1,604	4,477	1,635	304	259	- 488	1,402	10,574
1947-50 Av.	22,175	+ 324	22,498	999	247	436	1,470	4,310	1,507	277	54	- 723	1,328	9,905
Percent of total	---	---	---	10.1	2.5	4.4	14.9	43.5	15.2	2.8	6/ 0.5	- 7.3	13.4	100.0

1/ Adjustments for year-to-year changes in food stocks and in time lag between production of feed and of meat.
2/ Reduction in acres in cotton, tobacco and flaxseed together with acreage equivalent of non-food utilization of corn, barley and soybeans.
3/ Negative values are net exports, which are a withdrawal from the domestic food supply; positive values are net imports, which add to it.
4/ No data reported until 1941.
5/ A correction factor-- various of the 9 sources of increased food supply sometimes interact to provide more increase than can be attributed to individual ones.
6/ For 1950 alone the percentage would be 2.6.

SOURCES OF INCREASED FOOD SUPPLY*



DATA ARE CENTERED 5-YEAR MOVING AVERAGES

* *INCREASE IN TOTAL CONSUMPTION SINCE 1910-14 APPORTIONED TO 9 CONTRIBUTING FACTORS. MOST GAVE ADDITIONS TO SUPPLY, BUT A FEW SOMETIMES WERE WITHDRAWALS, AS SHOWN IN LOWER SECTION*

° *STATISTICAL CORRECTION FOR INTERACTION BETWEEN FACTORS*

U. S. DEPARTMENT OF AGRICULTURE NEG. 49436-X BUREAU OF AGRICULTURAL ECONOMICS

The slow yet significant increase in efficiency of converting feed to livestock products over the 1910-50 span cannot be measured exactly. Data from this study indicate the improved efficiency of feeding may have provided 15 percent of the total expansion in food consumption.

A Little More Feed From Pasture

Not all food comes from cropland. Much is produced from pasture and other grazing lands. Progress has been slower in improving pastures than in building up crop yields. Estimates of the amount of feed obtained from pasture are difficult to make. 1/ According to the available data, in 1947-50 the feed supply obtained from pasture was enough larger than that in 1910-14 to make up 4.4 percent of the total increase in food consumption.

One other way the nation's resources for producing food have been stretched is by the shift from consumption of butter to margarine. Whatever the relative merits of the two foods, a larger acreage of cropland is required to produce a pound of butter than a pound of margarine. Substitution of margarine definitely increases the acreage available for producing other foods. This change had by 1947-50 contributed 2.8 percent of the addition to total food supply since 1910-14.

Another source of more food is a change in the balance of foreign trade. In 1910-14 more food was exported than imported. The reverse is true now. Exports of pork and beef have declined, while imports of foods such as sugar, coffee and cocoa have increased. The change in foreign trade was responsible for 2½ percent of the increase in food consumption by 1950.

A major deduction from the civilian food supply is the requirement for the military services. As shown in the chart and table, the military takings were large in World War II and were still appreciable in 1950.

Significance to Future

This study has significance to long run trends. For the immediate future, an abundance of food is being produced and there is no danger of shortages. But the food supply has not always kept up with population and no one knows whether it will do so in the future. The Census Bureau has projected the population of the United States at between 199 million and 221 million in 1975. A considerable expansion in the food supply would be necessary for a population in that range.

Several of the sources of increased food in past decades will be of dwindling importance in years to come. Replacement of workstock is almost at an end. The cropland area will not be expanded in the future as it was over 3 centuries up to 1920, although reclamation could add somewhat to the present areas. Probably most promising is further improvement in crop yields per acre. Agronomists report that yields could be stepped up a great deal more if use were made of better practices that already are known. And new practices doubtless will be developed. Efficiency in converting feed to livestock products could be improved a great deal. Much study would be needed to evaluate the possibilities in the future. The present study can only show the relative importance of several major sources of increased food supply in the past, as a background for consideration of the future.

1/ Those used here are taken from "Consumption of Feed by Livestock, 1909-47" by R. D. Jennings, USDA Cir. 836, December 1949.

Selected Price Statistics for Meat Animals 1/

Item	Unit	1953			1954		
		Year total or average	Feb.	Mar.	Feb.	Mar.	Apr.
Cattle and calves							
Beef steers, slaughter	Dollars per						
Chicago, Prime	100 pounds	26.56	27.42	24.75	27.78	28.01	27.96
Choice	do.	24.14	24.49	22.68	23,86	23,89	24.83
Good	do.	21.56	22.03	20.85	21.28	21.11	21.77
Commercial	do.	18.74	19.67	19.03	18.27	17.86	18.78
Utility	do.	15.77	17.20	17.18	15.28	15.24	15.88
All grades	do.	23.62	23.41	21.98	22.96	22.88	23.77
Omaha, all grades	do.	21.91	21.64	20.67	21.75	21.53	22.23
Sioux City, all grades	do.	22.10	21.55	20.48	21.81	21.47	22.47
Cows, Chicago							
Commercial	do.	13.92	15.36	15.64	12.95	14.03	14.81
Utility	do.	12.41	14.52	14.50	11.66	12.41	12.85
Canner and Cutter	do.	10.67	13.23	12.96	10.41	10.73	10.64
Vealers, Choice and Prime, Chicago	do.	25.04	32.58	28.90	27.95	26.65	24.80
Stocker and feeder steers, Kansas City	do.	17.35	20.91	21.19	20.02	19.81	20.62
Price received by farmers							
Beef cattle	do.	16.30	18.50	17.70	16.20	16.60	17.10
Veal calves	do.	16.80	22.10	20.10	18.10	17.90	18.10
Hogs							
Barrows and gilts							
Chicago							
160-180 pounds	do.	21.82	19.34	20.10	25.64	25.43	26.46
180-200 pounds	do.	22.86	20.07	20.94	26.28	26.17	27.67
200-220 pounds	do.	22.99	20.08	21.00	26.25	26.36	27.84
220-240 pounds	do.	22.94	19.92	20.94	26.08	26.31	27.78
240-270 pounds	do.	22.75	19.64	20.78	25.66	26.06	27.47
270-300 pounds	do.	22.26	19.24	20.49	25.12	25.77	27.09
All weights	do.	22.03	19.72	20.78	25.74	25.92	27.30
Eight markets 2/	do.	21.99	19.65	20.62	25.83	25.86	27.30
Sows, Chicago	do.	20.56	17.15	18.65	22.83	23.67	24.17
Price received by farmers	do.	21.40	19.30	20.20	25.30	24.70	26.60
Hog-corn price ratio 3/							
Chicago, barrows and gilts	do.	14.5	12.7	13.3	16.7	16.7	17.5
Price received by farmers, all hogs	do.	15.0	13.5	13.8	17.7	17.2	18.3
Sheep and lambs							
Sheep							
Slaughter ewes, Good and Choice, Chicago	do.	7.14	9.73	10.26	8.50	9.38	8.12
Price received by farmers	do.	6.63	8.24	8.43	7.39	8.02	7.56
Lambs							
Slaughter, Choice and Prime, Chicago	do.	22.94	22.66	23.18	22.02	24.99	25.42
Feeding, Good and Choice, Omaha	do.	18.36	20.01	20.83	20.26	21.44	22.31
Price received by farmers	do.	19.30	20.50	20.40	19.10	20.90	21.80
All meat animals							
Index number price received by farmers (1910-14=100)		298	305	301	315	316	333
Meat							
Wholesale, Chicago	Dollars per						
Steer beef carcass, Choice, 500-600 pounds	100 pounds	39.78	39.96	37.18	37.85	37.92	39.45
Lamb carcass, Choice, 40-50 pounds	do.	44.68	42.30	43.58	42.22	46.22	48.75
Composite hog products, including lard							
72.84 pounds fresh	Dollars	23.85	21.33	21.94	27.12	27.36	
Average per 100 pounds	do.	32.74	29.28	30.12	37.23	37.56	
71.32 pounds fresh and cured	do.	27.53	24.72	25.47	30.54	31.06	
Average per 100 pounds	do.	38.60	34.66	35.71	42.82	43.55	
Retail, United States average	Cents						
Beef, Choice grade	per pound	69.6	71.2	68.3	68.2	67.3	
Pork, excluding lard	do.	54.1	49.2	50.6	57.9	57.8	
Index number meat prices (BLS) Wholesale (1947-49=100)		92.1	97.8	90.2	92.3	92.0	

1/ Annual data for most series published in Statistical Appendix to this Situation, released March 5, 1954.

2/ Chicago, St. Louis N. S. Y., Kansas City, Omaha, Sioux City, S. St. Joseph, S. St. Paul, and Indianapolis.

3/ Number bushels of corn equivalent in value to 100 pounds of live hogs.

Selected marketing, slaughter and stocks statistics for meat animals and meats 1/

Item	Unit	1953			1954		
		Year total or average	Feb.	Mar.	Feb.	Mar.	Apr.
Meat animal marketings							
Index number (1935-39=100)		160	141	155	136	160	
Stocker and feeder shipments to Corn Belt States							
Cattle and calves	1,000 head	3,532	86	124	184	220	
Sheep and lambs	do.	2,907	90	122	175	188	
Slaughter under Federal inspection							
Number slaughtered							
Cattle	do.	17,629	1,170	1,299	1,302	1,511	
Calves	do.	7,013	422	535	518	660	
Sheep and lambs	do.	14,283	1,088	1,190	1,090	1,149	
Hogs	do.	53,813	4,550	4,962	3,883	4,554	
Percentage sows	Percent	9.9	4.1	4.2	3.4	4.2	
Average live weight per head							
Cattle	Pounds	970	1,005	998	982	976	
Calves	do.	227	195	180	198	193	
Sheep and lambs	do.	95	103	103	102	102	
Hogs	do.	238	235	231	236	238	
Average production							
Beef, per head	do.	533	562	560	543	542	
Veal, per head	do.	126	110	103	110	108	
Lamb and mutton, per head	do.	45	49	48	49	48	
Pork, per head 2/	do.	136	132	131	136	138	
Pork, per 100 pounds live weight 2/	do.	57	56	57	57	58	
Lard, per head	do.	34	35	33	33	32	
Lard, per 100 pounds live weight ..	do.	14	15	14	14	14	
Total production							
Beef	Million pounds	9,368	655	725	704	815	
Veal	do.	882	46	55	57	71	
Lamb and mutton	do.	644	53	58	53	56	
Pork 2/	do.	7,293	601	650	526	628	
Lard	do.	1,812	158	164	129	147	
Total commercial slaughter 3/							
Number slaughtered							
Cattle	1,000 head	23,655	1,581	1,742	1,755	2,064	
Calves	do.	11,698	725	908	897	1,119	
Sheep and lambs	do.	15,966	1,180	1,296	1,212	1,274	
Hogs	do.	66,980	5,818	6,238	4,887	5,648	
Total production							
Beef	Million pounds	12,073	850	933	922	1,069	
Veal	do.	1,461	81	95	99	121	
Lamb and mutton	do.	718	57	63	59	61	
Pork 2/	do.	8,980	759	810	656	770	
Lard	do.	2,123	190	194	153	174	
Cold storage stocks first of month							
Beef	do.	---	264	254	230	205	174
Veal	do.	---	23	20	18	14	13
Lamb and mutton	do.	---	21	24	11	11	10
Pork	do.	---	596	605	393	414	420
Total meat and meat products 4/	do.	---	1,038	1,043	762	755	733

1/ Annual data for most series published in Statistical Appendix to this Situation, released March 5, 1954.

2/ Excludes lard.

3/ Federally inspected, and other wholesale and retail.

4/ Includes stocks of sausage and sausage room products, canned meats and canned meat products, and edible offals, in addition to the four meats listed.

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